Loss of Consciousness Induced by a Single Dose Flurbiprofen

Tek Doz Flurbiprofene Bağlı Gelişen Bilinç Kaybı

Flurbiprofen ve Bilinç Kaybı / Loss of Consciousness and Flurbiprofen

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Özet

Flurbiprofen alımına bağlı gelişen bilinç kaybı daha önce rapor edilmemiştir. Bu olgu sunumunda, tek doz oral flurbiprofen alımına bağlı gelişen bilinç kaybı sunulmuştur. 17 yaşında daha evvelden bilinen nörolojik hastalık ve atopi hikayesi olmayan genç kızda 100 mg oral flurbiprofen alımına bağlı bilinç kaybı gelişmiştir. Hasta başarı ile tedavi edilmiştir. Bu olgu sunumunda flurbiprofen alımına bağlı bilinç kaybı komplikasyonunun gelişebileceği anlatılmıştır, altta yatan mekanizmalar ve tedavi yaklaşımı tartışılmıştır.

Anahtar Kelimeler

NSAIDler; Flurbiprofen; Bilinç Kaybı

Abstract

Loss of consciousness after the administration of flurbiprofen has not been reported. In this case report, we describe loss of consciousness due to the administration of one oral dosage of flurbiprofen. A 17 year-old girl without a remarkable neurologic and atopic medical history had an loss of consciousness after ingestion of flurbiprofen mg 100 mg tablet. Patient was treated successfully. This report emphasies that this complication may be seen with flurobiprofen and underlying mechanisms and therapeutic approach are discussed.

Keywords

NSAIDs; Flurbiprofen; Loss of Consciousness

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Introduction

Nonsteroidal anti-inflammatory drugs (NSAIDs) are among the most widely used drugs worldwide and represent a mainstay in the therapy of acute and chronic pain. However, their use is frequently associated with a broad spectrum of adverse effects, which are related to the inhibition of prostaglandin synthesis in tissues where prostaglandins are responsible for physiological homeostasis. Such reactions include acute asthmatic attacks or perpetuation of ongoing asthma, initiation or perpetuation of chronic urticaria, anaphylactic/ anaphylactoid episodes, gastrointestinal and cardiovascular attacks [1-3].

Flurbiprofen, (1,1'-biphenyl)-4 acetic acid, 2-fluoro-alphamethyl-, (+) is a newly released nonsteroidal anti-inflammatory drug (NSAID) that has anti-inflammatory, analgesic and antipyretic activities. It is a potent cyclooxygenase (COX) inhibitor and thereby blocks prostoglandin synthesis [4].

In this paper, we report the flurbiprofen-induced loss of consciousness by taking one dose of oral flurbiprofen.

Case Report

A 17 year old girl without a remarkable neurologic and atopic medical history was admitted to hospital after being found unconscious at home. One hour before admission, she had taken one Flurbiprofen tablet (Majezik ™, Sanovel, 100 mg) for headache. She had taken no other medication. General physical examination showed: body temperature: 36.2° C, normal blood pressure (120/70 mmHg) and heart rate was 90 bpm. Neurological examination revealed: She was not responding to verbal commands or deep pain. There was no frothing, no uprolling of eyes, pupils were normal in size and shape and reactive to light. The blood gases and respiration, kidney function were normal. O2 saturation was 98 %, 100% oxygen was given through face mask at the rate of 10 min-1 . Laboratory parameters were all normal. A brain computed tomography and magnetic resonance showed no signs of intracerebral bleeding or other abnormalities. An electroencephalography did not show epileptic activity. Transthorasic echocardiogram and otorhinolaryngological examination were normal.

The patient transferred to the intensive care unit. In the intensive care unit, her body temperature was 36.2 °C, pulse rate 100 beats per min-1, blood pressure 129/87 mmHg. Arterial blood gases showed pH: 7.37, pO2:118 mmHg, pCO2: 31 mmHg and oxygen saturation was 98 with 5 lt/min nasal oxygen. The chest radiograph was normal. A cardiovascular system examination revealed that her heart rate was rhythmic, no murmur was heard. After 24 hours in the intensive care she gradually started responding to deep pain. She opened her eyes on verbal commands. On the 2nd day she was discharged from intensive care.

Discussion

Adverse reactions to NSAIDs have been reported for years. The adverse reactions to NSAIDs observed were in most cases skin complaints (88.9%), followed by respiratory symptoms (asthma, rhinitis) and general symptoms (shock, hypotension, gastrointestinal bleeding) [1,2,3]. Ingestion of NSAIDs elicits respiratory, nasal and gastrointestinal symptoms as well as dermal changes in a subset of patients. At the moment, it is widely accepted that inhibition of COX by NSAID is the mechanism responsible for the unwanted effects of those drugs. COX exists in two isoforms. COX-1 is constitutively expressed in most tissues and modulates normal cell activity. COX-2 activity is substantially increased in inflammatory conditions [5].

Loss of consciousness has been reported as an adverse effect of oral NSAID administration. In a manuscript from Italy, the authors reported the incidence of anaphylaxis with loss of consciousness in the emergency department and concluded that NSAIDs appeared to be an important cause [6]. A case report from Spain, a 65 year-old man without a remarkable neurologic and atopic medical history had an episode of seizures about 15 min after ingestion of indomethacin 50 mg tablet [7]. The authors explained this event as an idiosyncratic mechanism. Another case report from Japan, a 85-year-old woman experienced syncope after taking NSAID and angiotensin-converting inhibitor [8]. This case is explained by using this medications together.

Loss of consciousness after taken 100 mg flurbiprofen made us consider the relationship between loss of consciousness and this drug. Because of no remarkable neurologic, cardiovasculer, metabolic and atopic medical history we thought that loss of consciousness was due to flurbiprofen administration. The factors are far from being clearly understood, but probably involve some form of predisposition to the loss of consciousness and a pharmacologic mechanism: in mice, it was shown that NSAID act on the convulsive threshold by inhibition of cerebral prostaglandin and thomboxane synthesis [9]. We thought that an idiosyncratic mechanism could be implicated, possibly related to prostaglandin and/or tromboxane levels in the brain in our patient.

To our knowledge this case report is the first case describing loss of consciousness by taking only one dosage flurbiprofen. This case warns physicians that loss of consciousness to flurbiprofen, an unusual unpredictable adverse reaction, must be kept in mind. Early recognition and proper emergent treatment are essential to reversing this complication.

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